

Docket No.: 066778-0355



PATENT

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Applicant : Luecke, Hartmut, et al.  
Appl. No. : 10/663,347  
Filed : September 15, 2003  
Title : CRYSTAL STRUCTURES OF T.  
FOETUS INOSINE  
MONOPHOSPHATE  
DEHYDROGENASE IN COMPLEX  
WITH SUBSTRATE, COFACTOR  
AND ANALOGS AND USES  
THEREOF

Customer No.: 41552  
Confirmation No.: 1577  
CERTIFICATE OF MAILING (37 CFR. § 1.8(a))

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail as First Class Mail under 37 CFR 1.8(a) in an envelope addressed to Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on Jan 27, 2005.

Sarah Munez

Grp./A.U. : 1651  
Examiner: : Susan E. Fernandez

**INFORMATION DISCLOSURE STATEMENT**

Mail Stop Amendment  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

In accordance with the provisions of 37 C.F.R. 1.56, 1.97 and 1.98, the attention of the Patent and Trademark Office is hereby directed to the documents listed on the attached form PTO-1449. It is respectfully requested that the documents be expressly considered during the prosecution of this application, and that the documents be made of record therein and appear among the "References Cited" on any patent to issue therefrom.

This Information Disclosure Statement is being filed more than three months after the U.S. filing date AND after the mailing date of the first Office Action on the merits, but before the mailing date of a Final Rejection or Notice of Allowance.

02/02/2005 ZJUHA1 00000023 502624 10663347

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10/663,347


In accordance with 37 CFR 1.17(p), please charge the fee of \$180.00 to Deposit Account No. 502624.

The relevance of each non-English language reference, if any, is discussed in the present specification.

Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 502624 and please credit any excess fees to such deposit account.

Respectfully submitted,

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**Date: January 27, 2005**

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INFORMATION DISCLOSURE  
CITATION IN AN  
APPLICATION

(Substitution for PTO-1449)

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066778-0355SERIAL NO.  
10/663,347APPLICANT  
Luecke, Hartmut, et al.FILING DATE  
September 15, 2003GROUP  
1651

## U.S. PATENT DOCUMENTS

EXAMINER'S INITIALS	CITE NO.	Document Number Number-Kind Code <sup>2</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		US			
		US			
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## FOREIGN PATENT DOCUMENTS

EXAMINER'S INITIALS	CITE NO.	Foreign Patent Document Country Codes - Number & -Kind Codes (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines Where Relevant Figures Appear	Translation	
						Yes	No

## OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)

EXAMINER'S INITIALS	CITE NO.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	
	1	Beck et al., "Cloning, sequencing, and structural analysis of the DNA encoding inosine monophosphate dehydrogenase (EC 1.1.1.205) from Tritrichomonas foetus," <u>Exp. Parasitol.</u> 78(1):101-112 (1994).	
	2	Brunker et al., "Crystallography & NMR system: A new software suite for macromolecular structure determination," <u>Acta. Crystallogr. D. Biol. Crystallogr.</u> 54 (Pt 5):905-21 (1998).	
	3	Chin et al., "Isolation, sequencing and expression of the gene encoding hypoxanthine-guanine-xanthine phosphoribosyltransferase of Tritrichomonas foetus," <u>Mol. Biochem. Parasitol.</u> 63(2):221-9 (1994).	
	4	Colby et al., "Crystal structure of human type II inosine monophosphate dehydrogenase: implications for ligand binding and drug design," <u>Proc. Natl. Acad. Sci. U S A.</u> 96(7):3531-6 (1999).	
	5	Digits et al., "Kinetic mechanism of Tritrichomonas foetus inosine 5'-monophosphate dehydrogenase," <u>Biochemistry</u> 38(8):2295-306 (1999).	
	6	Digits et al., "Drug selectivity is determined by coupling across the NAD <sup>+</sup> site of IMP dehydrogenase," <u>Biochemistry</u> 39(7):1771-7 (2000).	

EXAMINER

DATE CONSIDERED

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

1 Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached.

<b>INFORMATION DISCLOSURE</b> <b>CITATION IN AN</b> <b>APPLICATION</b>		ATTY. DOCKET NO. <b>066778-0355</b>	SERIAL NO. <b>10/663,347</b>
		APPLICANT <b>Luecke, Hartmut, et al.</b>	
(Substitution for PTO-1449)		FILING DATE <b>September 15, 2003</b>	GROUP <b>1651</b>
7	Hager et al., "Recombinant human inosine monophosphate dehydrogenase type I and type II proteins. Purification and characterization of inhibitor binding," <u>Biochem Pharmacol.</u> 49(9):1323-9 1995.		
8	Jones et al., "Improved methods for building protein models in electron density maps and the location of errors in these models," <u>Acta. Crystallogr. A.</u> 47 (Pt 2):110-9 (1991).		
9	Kerr et al., "Monovalent cation activation in Escherichia coli inosine 5'-monophosphate dehydrogenase," <u>Arch. Biochem. Biophys.</u> 375(1):131-7 (2000).		
10	Kuntz et al., "A geometric approach to macromolecule-ligand interactions," <u>J. Mol. Biol.</u> 161(2):269-88 (1982).		
11	Laskowski et al., "Computer Programs," <u>J. App. Cryst.</u> 26:283-291 (1993)		
12	Luecke et al., "Tritrichomonas foetus: a strategy for structure-based inhibitor design of a protozoan inosine-5'-monophosphate dehydrogenase," <u>Exp Parasitol.</u> 87(3):203-11 (1997).		
13	Metz et al., "Inosine-5'-monophosphate dehydrogenase is required for mitogenic competence of transformed pancreatic beta cells," <u>Endocrinology</u> 142(1):193-204 (2001).		
14	Schuller et al., "The allosteric ligand site in the Vmax-type cooperative enzyme phosphoglycerate dehydrogenase," <u>Nat. Struct. Biol.</u> 2(1):69-76 (1995).		
15	Sintchak et al., "Structure and mechanism of inosine monophosphate dehydrogenase in complex with the immunosuppressant mycophenolic acid," <u>Cell.</u> 85(6):921-30 (1996).		
16	Stehle et al., "Structure of NADH peroxidase from Streptococcus faecalis 10C1 refined at 2.16 Å resolution," <u>J. Mol. Biol.</u> 221(4):1325-44 (1991).		
17	van Aalten et al., "PRODRG, a program for generating molecular topologies and unique molecular descriptors from coordinates of small molecules," <u>J. Comput. Aided Mol. Des.</u> 10(3):255-62 (1996).		
18	Verham et al., "Purification, characterization, and kinetic analysis of inosine 5'-monophosphate dehydrogenase of Tritrichomonas foetus," <u>Mol Biochem Parasitol.</u> 24(1):1-12 (1987).		
19	Whitby et al., "Crystal structure of Tritrichomonas foetus inosine-5'-monophosphate dehydrogenase and the enzyme-product complex," <u>Biochemistry.</u> 36(35):10666-74 (1997).		
20	Wilson et al., "Amplification and molecular cloning of the IMP dehydrogenase gene of Leishmania donovani," <u>J. Biol. Chem.</u> 266(3):1665-71 (1991).		

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